

FACULTY**B. Pharmacy 2/4 I Semester (Non CBCS) (Backlo) Examination, November 2018****Subject : Pharmaceuticals Organic Chemistry I****Time : 3 Hrs****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Explain the following terms with examples. (4x3.5)
(i) Hydrogen bonding (ii) Electromeric effect
(iii) Chirality (iv) Hybridization
- OR**
- (b) What is activation energy? Discuss the energy diagrams of reactants and products during the course of reaction. (8)
(c) What is isomerism? Explain structural and spatial isomerism with example. (8)
- 2 (a) Explain Markovnikov's and Anti-Markovnikov's addition with examples. (8)
(b) Write any two methods of preparation of alkanes. (7)
- OR**
- (c) Explain the stability of cycloalkanes by different theories. (10)
(d) Write any two chemical reactions of alkanes. (4)
- 3 (a) Discuss in detail the mechanism and stereochemistry involved in S_N^1 and S_N^2 reactions. (10)
(b) Write a note on hydrogen bonding in alcohols. (4)
- OR**
- (c) How will you distinguish between primary, secondary and tertiary alcohols with different chemical reagents? (8)
(d) Write a note on Saytzeff's rule. (6)
- 4 (a) Write any three methods to synthesize carboxylic acids. (6)
(b) Discuss the reactivity and applications of malonic acid ester. (8)
- OR**
- (c) How do you synthesize Schiff's bases? (4)
(d) Write any two methods each to prepare aldehydes and ketones. (10)
- 5 (a) Write a note on basicity of amines. (5)
(b) Give the mechanism for following reactions (3x3.5)
(i) Sandmeyer reaction
(ii) Cplin reaction
(iii) Overmann reaction
- OR**
- (c) Explain separation of amines by Hinsberg's method. (4)
(d) Write a note on Aryldiazonium salts (5)
(e) Write any two methods to prepare Nitroalkanes. (5)
